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Improvements in or relating to diagnostic/therapeutic agents

5           This invention relates to diagnostic and/or  
therapeutically active agents, more particularly to  
diagnostic and/or therapeutically active agents  
incorporating moieties having affinity for sites and/or  
structures within the body so that diagnostic imaging  
10   and/or therapy of particular locations within the body  
may be enhanced. Of particular interest are diagnostic  
agents for use in ultrasound imaging, which are  
hereinafter referred to as targeted ultrasound contrast  
agents.

15           It is well known that ultrasonic imaging comprises  
a potentially valuable diagnostic tool, for example in  
studies of the vascular system, particularly in  
cardiography, and of tissue microvasculature. A variety  
of contrast agents has been proposed to enhance the  
20   acoustic images so obtained, including suspensions of  
solid particles, emulsified liquid droplets, gas bubbles  
and encapsulated gases or liquids. It is generally  
accepted that low density contrast agents which are  
easily compressible are particularly efficient in terms  
25   of the acoustic backscatter they generate, and  
considerable interest has therefore been shown in the  
preparation of gas-containing and gas-generating  
systems.

          Gas-containing contrast media are also known to be  
30   effective in magnetic resonance (MR) imaging, e.g. as  
susceptibility contrast agents which will act to reduce  
MR signal intensity. Oxygen-containing contrast media  
also represent potentially useful paramagnetic MR  
contrast agents.

35           Furthermore, in the field of x-ray imaging it has  
been observed that gases such as carbon dioxide may be  
used as negative oral contrast agents or intravascular